




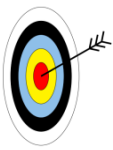
## Feelings and Variables





Worksheets provide guidance throughout the program creation.

Mind the following symbols that..

- ✘ structure your work progress and show subgoals, 
- ✘ provide help, mark and explain challenging and important notes 
- ✘ include assignments and activities. 



### Jigsaw Method: Sensings and Variables

You will learn how to use  and to teach the *characters*, for example the , to **feel**. Besides that, you will get to know what the **variables** are for in this context.

Are you curious by now? Well let's get started!



### Sensing using variables:

The cat is supposed to wait until it is touched; it should then ask for your name, which you then also enter! Detailed instructions are yet to come 😊






For this purpose, we first set the **start condition**. Select the start condition "if-green-flag-clicked" from the **Events** menu "scripts" menu and simply drag it right into the free field in your **programming interface**.


Start/Stop




## Feelings and Variables

The cat  is to be observant to you as soon as the **mouse-pointer touches** it. For this purpose, you will find the following puzzle section in the menu “scripts” in the **Control** area: 

Due to this puzzle piece the cat  **waits until** a **condition** - which you can still insert into the jigsaw piece **is fulfilled**. In our example, it will **wait until** you **touch it with the mouse-pointer**. For this purpose, choose the following condition. Therefore, click on the “Sensing” button:

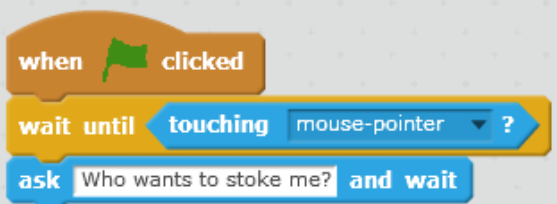
 touching mouse-pointer ? You can select the mouse-pointer here.

As soon as you touched the cat , it is supposed to **ask** you by whom it is going to be stroked. For this, change the following jigsaw piece of **Sensing**:

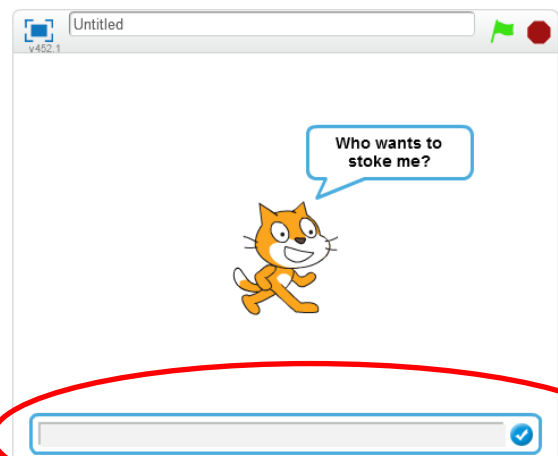
 ask What's your name? and wait **The question can be inserted in the puzzle piece.**

This is how your program is supposed to look like by now.



 when clicked  
wait until touching mouse-pointer ?  
ask Who wants to stoke me? and wait

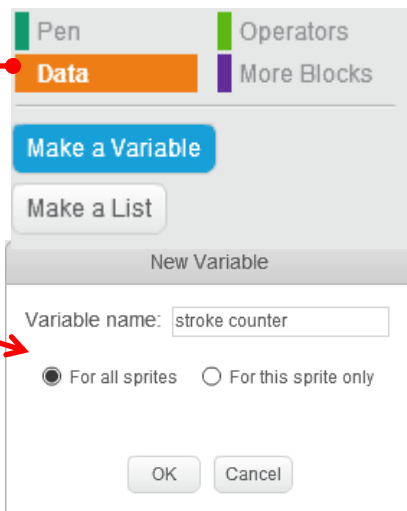
You can fill in your name here!



## Feelings and Variables



For the 🐱 noticing how often you stroked it (i.e. clicked on it), we now create a "memory", a so-called **variable**. The variable gets a suitable name, for example "stroke counter".



By placing a tick mark the "stroke counter" becomes visible on the stage!



Every time we click on 🚩, the 🐱 should start counting again from "0". This is why we set the **variable** to "0" in this program section, so the 🐱 knows when to start counting.

For this to work in your program, you **set the strokes counter to "0"**, as well. You can find the matching puzzle part under "Data". Just drag it under your existing puzzle pieces into your programming interface.

If your program looks like this, you have done everything right! Let's go to the second part!



## Feelings and Variables



What exactly is your program able to do right now? What can I **feel**?

What is the **variable** doing?  
Explain your current program in your own words!



1.

---

2.

---

3.

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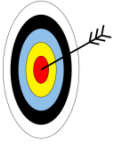
4.



### Keep in mind:

We want the cat to notice that we stroke it. It is also supposed to know, when it is being stroked. In addition, we display our counts on the stage with the help of our created variables (alias "strokes counter").


## Feelings and Variables

**Counting with the help of variables:**


After we have created our **variable**, we want to use it now. The cat should now count, or to be more specifically, it should remember how often it was stroked. This is what we are doing in the **second part** of the program, which we **start** with the **condition** "if-I-clicked". This part of the program is activated every time we **click** on the cat.



Choose the "When-this-sprite-clicked" of **Events** from the scripts menu and put it under your first program.

Now drag "change-strokes-counter-plus 1" Data from your created variable under this block, in order to let the  start counting. This should now look like this:



Next we teach the  to say "thank you" as soon as it was stroked 5 times. For this, we use the "if-then" **command** from the **Control**:

**If** the cat was stroked 5 times,  
**Then** it should then say "thank you".



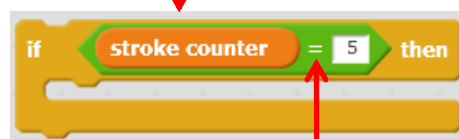
Now drag the **condition** that is to be fulfilled to the **command** above. In our case, **if the cat has been stroked 5 times**, that is, the **stroke counter is 5**.

We use the **comparison-operator**:





It compares whether the left value is equal to the right.

This looks like this:



## Feelings and Variables



Fill in the following puzzle piece  into the “if-then” command, in order to let the  say “thank you” for stroking it. Add to the white area: “Thank you for stroking!”.


The puzzle piece that has to be filled in, can be found in the menu item “Appearance”.

Are there any questions? 😊 Test your program!




Did your program work?

Why did you enter your name in the first part of your program?

- Because the cat is supposed to address you, when it says “thank you”!
- But how does the cat still remembers your name?
- Because it has stored it in the already existing **variable**  and can therefore access it at any time.



You can **connect** the  with the sentence you want to say with the help of an operator. This should look like this:

Does the second part of the program look like this?



**Congratulations!**  
**You have reached your goal!**

